



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,670	07/13/2001	Chui-Kuei Chiu	4425-162	1841

7590 05/23/2006

LOWE HAUPTMAN  
GILMAN & BERNER LLP  
Suite 310  
1700 Diagonal Road  
Alexandria, VA 22314

EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/903,670

Applicant(s)

CHIU, CHUI-KUEI

Examiner

Madeleine AV Nguyen

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 16, 2006 has been entered.

Applicant amends claims 18, 19, 21, 23-26, adds new claims 28-33.

### ***Response to Arguments***

2. Applicant's arguments, see pages 7-8, filed on March 16, 2006, with respect to claims 18-27 have been fully considered and are persuasive. The rejections under 35 U.S.C. 101 and 35 U.S.C. 112 of claims 18-27 has been withdrawn.

### ***Claim Rejections - 35 USC § 103***

3. Claims 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matama (US Patent No. 6,683,981).

Concerning claim 23, Matama discloses an apparatus (Fig.4) comprising means for scanning a calibration chart (calibration pattern 104) a first time (first scan or pre-scan); means for saving information for read data from the first scan of the calibration chart in a memory (pre-scan memory 40); means for scanning the calibration chart a second time (second scan or fine

Art Unit: 2625

scan); means for combining the read data from the second scan with the read data from the first scan of the calibration chart; means for replacing the saved information from the first scan with the summed information from the first and second scans.

Matama does not specifically teach the saving of the first pixel from the first scan and the second scan and the summing information of the first pixel from the second scan with the information for the first pixel from the first scan of the calibration chart. However, since Matama teaches the first and second readings of the calibration chart and the summing of the information of the read data from the first and second readings, that also include the saving and summing for the first pixels of the first and second readings. It would have been obvious to one skilled in the art at the time the invention was made to consider Matama teaches the claimed limitation related to the first pixel in the first and second scans since the claim states means relating to “the first pixel” of the first and second scans and not “only the first pixel” of the first and second scans.

Matama does not specifically teach the summing information for the read data from the first and second scans. However, Matama teaches the information from the first and second scans is combined in order to determine differences between the first and second scans and performing different adjustments and corrections. It would have been obvious to one skilled in the art at the time the invention was made to consider the combination of the information read from the first and second scans equivalent to the summing of the information read from the first and second scans since Matama also teaches “processing the digital image data thereafter on said frame images under the thus adjusted image processing condition, wherein the step of adjusting

Art Unit: 2625

said image processing condition based on the relative value to said digital calibration pattern data is performed during the first reading mode.” (col. 14, lines 25-45).

Concerning claims 24, 26, Matama further teaches means for producing an average value.

Matama does not directly teach means for dividing a value of the summed pixel information by the number of times that the calibration chart is scanned to produce an average value. However, Matama teaches calculation for obtaining an average density (col. 8, line 31), which is dividing a summed value by a number to produce an average value. It would have been obvious to one skilled in the art at the time the invention was made to consider the calculation for obtaining an averaging density equivalent to the average value in the claim since Matama also teaches means for or step of modifying the image processing condition “in such as way that an image processing result concerning at least one of the color and the density in said second image reading mode agrees with an image processing result concerning at least one of the color and the density in said first image reading mode.” (col. 14, lines 37-45).

Claims 18-19 are method claims of apparatus claims 23-24. Claims are rejected for the same rationales set forth for claims 23-24.

Concerning claim 25, Matama discloses an apparatus (Fig.4) comprising means for scanning a calibration chart (calibration pattern 104) a first time (first scan or pre-scan); means for performing a first subtraction operation to subtract a base value from a value for read data from the first scan of the calibration chart (equations 1-3, col. 9, line 51 – col. 10, line 5); means for saving the result of the first subtraction operation in a memory (col. 10, lines 17-19); means for scanning the calibration chart a second time (second scan or fine scan); means for performing a second subtraction operation to subtract the base value from a value for read data from the

Art Unit: 2625

second scan of the calibration chart (equations 4-6, col. 10, lines 22-33); means for combining the results from the first and second subtraction operations (col. 10, lines 34-36; col. 10, line 37 – col. 11, line 45).

Matama does not specifically teach the first and second subtraction operation to subtract a base value from a value for a first pixel from the first and second scans of the calibration chart. However, since Matama teaches the first and second readings of the calibration chart and the subtraction operations of the information of the read data from the first and second readings, that also include the subtraction operations for the first pixels of the first and second readings. It would have been obvious to one skilled in the art at the time the invention was made to consider Matama teaches the claimed limitation related to the first pixel in the first and second scans since the claim states means relating to “the first pixel” of the first and second scans and not “only the first pixel” of the first and second scans.

Matama does not specifically teach means for summing the results from the first and second subtraction operations. However, Matama teaches the information resulting from the first and second scans is combined in order to determine differences between the first and second scans and performing different adjustments and corrections. It would have been obvious to one skilled in the art at the time the invention was made to consider the combination of the information read from the first and second scans equivalent to summing the results from the first and second subtraction operations since Matama also teaches “processing the digital image data thereafter on said frame images under the thus adjusted image processing condition, wherein the step of adjusting said image processing condition based on the relative value to said digital calibration pattern data is performed during the first reading mode.” (col. 14, lines 25-45).

Concerning claim 27, Matama further teaches means for range-checking the results of the first and second subtraction operations (col. 14, lines 21-45).

Concerning claim 28, Matama further teaches replacing the saved result of the first subtraction operation with the summed results from the first and second subtraction operations (col. 10, lines 6-36).

Concerning claims 29-30, Matama discloses an apparatus as discussed in claims 23-24 above. Matama further teaches a photo-sensor (CCD 34, Fig.1) and an analog-digital conversion circuit (col. 7, lines 33-36; col. 10, line 44) capable of scanning a calibration chart first and second times and a memory (40, Fig.4) capable of saving information read from the first scan of the calibration chart.

Concerning claims 31-33, Matama discloses an apparatus as discussed in claims 25-27 above. Matama further teaches a photo-sensor (CCD 34, Fig.1) and an analog-digital conversion circuit (col. 7, lines 33-36; col. 10, line 44) capable of scanning a calibration chart first and second times and a memory (40, Fig.4) capable of saving information read from the first scan of the calibration chart.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

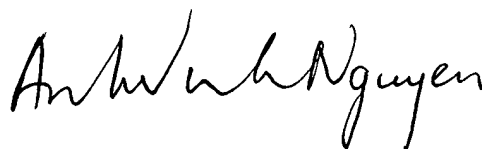
a. Cocca (US Patent No. 5,649,253) discloses a self-calibration circuit operating in a calibration mode and in a normal operation mode in relation to the calibration of sensors.

Art Unit: 2625

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Tuesday-Thursday 12:30-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen  
Primary Examiner  
Art Unit 2625

May 18, 2006